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—page 20

➤ Equipment Guide

Video Monitors

—pages 27-33

COMMENTARY

4KTV: The Devil Is in the Details

UHDTV is coming, but what is there to watch?

BY PETE PUTMAN

HOLLYWOOD—At SMPTE's annual Technology Conference here last month, an all-day symposium was held on UHDTV and 4K. Parallel tracks covered such topics as UHDTV delivery to the home, 4K workflows, high dynamic range TV, and human visual response and perception of higher-resolution images, along with updates from Hollywood and broadcasters on their plans for and support of UHDTV.

In a "Consumer Update" at the end of the session, I discussed the availability of UHDTVs and pricing trends. You can already buy several models of 4KTVs ("4K" in this case stands for a resolution of 3840x2160 pixels, more accurately described as Quad HD or 2160p), starting with super-cheap models from Chinese

4KTV, PAGE 8

Photo Credit: CEA

UHDTVs are expected to be a big seller this holiday season. But where's the UHD content?

Taking Stock of CALM

FCC tweaks rules on eve of first anniversary

BY PETER SUCIU

NEW YORK—Nearly a year after the passage of the Commercial Advertisement Loudness Mitigation Act—also known as the CALM Act—commercial advertisements are generally less jarringly loud. But this hasn't been limited to commercial over-the-air TV; unlike many FCC regulations, cable system operators are also subject to the rule.

The law, which was adopted in December 2011 and took effect last December, was aimed to prevent TV commercial audio from being broadcast at louder volumes than the accompanying TV programs. It further required all multichannel video programming distributors to implement "Techniques for Establishing and Maintaining Audio Loudness for Digital Television," also known as ATSC Recommended Practice A/85.

In the year since, the FCC has granted more than 150 waivers for TV stations, cable operators and other MVPDs that could prove financial hardship. According to the FCC's latest update, as of June, it had received nearly 16,000 complaints but had not issued any fines. "The vast majority of end users in the U.S. have satisfied their loudness processing needs and

CALM, PAGE 10

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IN THIS ISSUE

NOVEMBER 20, 2013 ➤ TVTECHNOLOGY.COM/11-20-13 ➤ VOLUME 31, ISSUE 24

TUNE IN TO TVTECHNOLOGY.COM

Check out our latest ebooks on sports production and the cloud under the "Resources" tab.

NEWS

1 **4KTV: The Devil Is in the Details**
UHDTV is coming, but what is there to watch?

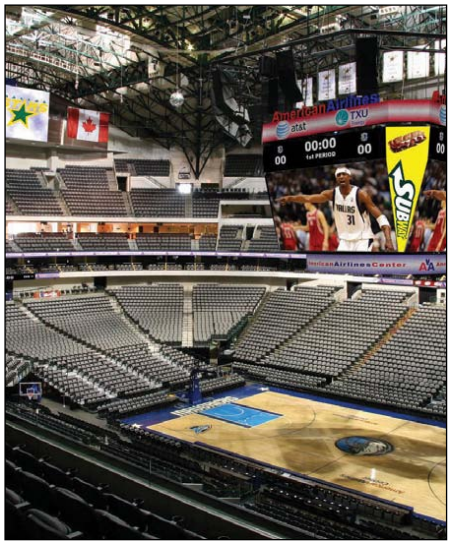
1 **Taking Stock of CALM**
FCC tweaks rules on eve of first anniversary

12 **Wrangling 14-Channel Sound in Dallas**
Dallas Audio Post mixes arena videos for Stars, Mavericks

14 **More Than Just a 'Channel in a Box'**
Market for integrated playout systems expected to more than triple by 2017

16 **Modified 'Hybrid Storage' Offers Many Options**
Integrating disk-based servers with the cloud in the production environment

18 **Digital Journal—Switching from 1080 to Ultra HD**
Making the affordable choice



EQUIPMENT GUIDE

27 **User Reports — Video Monitors**
Marshall, Plura, Flanders

33 **Reference Guide**
Multiviewers

INSIGHT

20 **Managing and Storing Your Initial Original Content**
Storage Technology, Karl Paulsen

22 **Squash Anyone? Pick Your Platform**
Multiscreen Views, Gary Arlen

24 **Loudspeakers—Parameters and Design**
Audio By Design, Mary Gruszka

25 **Minimizing DTV Interference After Channel Repacking**
Digital TV, Charles W. Rhodes

EQUIPMENT

31 **Product Showcase**

32 **Classifieds**

34 **Marketplace**

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EQUIPMENT GUIDE | VIDEO MONITORS

➤ FOR MORE INSIGHT AND INNOVATION VISIT TVTECHNOLOGY.COM/11-20-13

Marshall Monitors Enhance New Proshow HD Truck

BY TIM LEWIS
President and Founder
Proshow Broadcast

VANCOUVER, BRITISH COLUMBIA—Proshaw Broadcast provides mobile production facilities for coverage of sporting and other events. We recently enlarged our

USER REPORT

vehicle fleet with the addition of "Maestro," a 40-foot HD truck that's based in the Pacific Northwest and is used for NCAA sports, MLS Soccer, NBA, NHL and a variety of entertainment and corporate events. The predominant monitors in this new truck are from Marshall Electronics.

The largest Marshall installation in the truck is the main production monitor wall. These walls are often the biggest "wow factor" in a truck and this all-Marshall wall doesn't disappoint. It's anchored by three Marshall V-R371-IMD 37-inch displays, with each having a 10-input multiviewer feeding it to provide the director and producer with the 30 principal camera and tape sources.

In addition, there are 10 Marshall VP-201TE 20-inch units for preset/preview/program and other full screen and quad-split viewing. We also have six Marshall V-R171-IMD 17-inch monitors in both quad and non-quad versions located in front of the technical director/video switcher position. These units offer a DVI input in addition to the four BNCs, making them perfect for displaying an EVS Spotbox desktop.

The other "all Marshall" wall in the truck

Tim Lewis

is at the EVS bench for displaying the EVS server desktops, as well as all of the EVS I/O and any other source required by replay operators.

FULLY FEATURED MONITORS WITH AN EASY BOTTOM LINE

One of the many reasons we chose Marshall monitors is their price to features/performance balance. Marshall has managed to hit a practical price, while at the same time offering you a truly professional product.

This starts with a proper metal enclosure that's easy to mount, with the VP-201 "truck edition" monitor being a good example. Marshall supplies their proprietary rackmount for this monitor. It's equipped with slides that allow you to place a 20-inch diagonal monitor in a 19-inch rack space. And the slide system gives you easy access to wiring and menu controls from the front of the rack. This is a truly smart design and demonstrates that Marshall is in touch with the industry for which they're building products.

Next on the list is a proper HD-SDI BNC input. HDMI inputs are cheap and plentiful on many monitors, but they're very difficult to deal with in a truck installation and usually require the use of additional external conversion devices that add cost and reduce reliability. All of the Marshall monitors have loop-through BNC inputs.

NO UMD SYSTEM NEEDED HERE

The Marshall monitors also feature a unique IMD (in-monitor display). With this built in, there's no need for a separate UMD (under monitor display) system that would add significant cost and occupy additional rack space.

A simple RS-422 looping connection ties every monitor back to our truck engineer's computer, eliminating the need for a bulky data router or homerun wiring. A simple software program can rename every source in every monitor in the truck in just moments, providing us with a huge productivity boost on busy set-up days.

Thanks in part to Marshall Electronics, we're able to deliver industry-leading broadcasters and producers the high-quality facilities they need at a practical price with our new Maestro mobile production facility.

Tim Lewis is the president and founder of Proshow Broadcast and has been in live production for 30 years. He may be contacted at timlewis@proshow.com.

For additional information, contact Marshall Electronics at 800-800-6608 or visit www.marshall-usa.com.

BUYERS BRIEFS

Hamlet Precision HDW7 Video Monitor

Hamlet's Precision HDW7 7-inch video monitor provides 1280 x 800 HD resolution and its compact size makes it ideal for ENG, EFP and other applications where high-quality images and portability are essential.

The monitor features a programmable parameter setup and recall for up to four users, and includes a false color display with user–adjustable over- and under-luminance warnings. In addition to video display, it also provides video waveform, vector, and RGB parade information.

The HDW7 accepts HD-SDI and HDMI video sources and sports an 800:1 contrast ratio and 400 Nit display brightness. It also provides underscan and red, green, or blue gun-only displays.

For additional information, contact Hamlet at 866-442-6538 or visit *www.hamlet.co.uk*.

Blackmagic Design LDX-46 HD Display

Blackmagic Design's SmartScope Duo 4K dual screen monitor provides high-quality video monitoring on twin 8-inch LCD screens in a compact rackmount design that's less than an inch thick. It

includes image processing circuitry that allows each screen to be independently selected for either video display or waveform monitoring.

The monitor displays seven types of waveform information, including vectorscope, RGB parade, YUV parade, histogram and 16 channels of SDI audio. It accepts a wide variety of video signals, including SD, HD, and UHD via its 6G-SDI inputs.

The SmartScope is remotely controlled via a user's Ethernet network with a control software panel for Windows and Mac OS X operating systems.

For additional information, contact Blackmagic Design at 408-954-0500 or visit *www.blackmagicdesign.com*.

Barco LDX-46 HD Display

Barco's LDX-46 video display unit provides 46-inch high-resolution images for professional monitoring applications via its edge-mounted LED-backlit LCD screen. It offers a native 1920 x 1080 resolution and a 178-degree viewing angle.

The monitor provides a 10-bit color depth and has fanless cooling to eliminate operational noise. It accepts a variety of video signal sources, including SDI, HDMI, DVI, S-Video and CVBS.

The LDX-46 features a contrast ratio of 4,000:1 and a 700 cd/m2 brightness rating. It provides a 120 Hz frame refresh rate and its light source has an estimated time between failures of more than 1000,000 hours.

For additional information, contact Barco at 888-414-7226 or visit *www.barco.com*.